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NEW TECHNICAL SOLUTIONS FOR THE BURIAL OF DISTRIBUTION NETWORKS: BENEFITS AND REASONS WHY

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AIM OF THE PRESENTATION

- Improvement of the impact on urban furniture
- Reduction of obstacles and architectural barriers
- Greater environmental sustainability
- Reducing interventions for the laying of the infrastructures
- Increase of infrastructure security
- Increased resistance to environmental degradation and vandalism
- Reduction of maintenance interventions

SEARCH FOR PLACES

Research has been launched in the Lazio region aimed at those municipalities that have set themselves the goal of enhancing their territories

Locations were chosen which dealt with the theme of the smart city as their main objective.

An "intelligent city" saves resources, promotes sustainable lifestyles and intelligent mobility, implements innovative solutions, and optimizes the flow of people and information.

The "smart cities" therefore use digital technology to better govern the city and maximize the enhancement and control of the security of citizens

Ensuring "security" by transmitting to citizens the feeling of being able to move and interact in "protected", "safe" spaces, in order to encourage, increase and improve social relations, multi-ethnic integration and an orderly and civil coexistence

SEARCH FOR PLACES

The aim is the removal of degradation factors and promotion of sustainable urban development through a set of integrated actions and interventions such as:

- intelligent lighting
- social inclusion measures
- car-pooling,
- free Wi-Fi
- new public facilities.

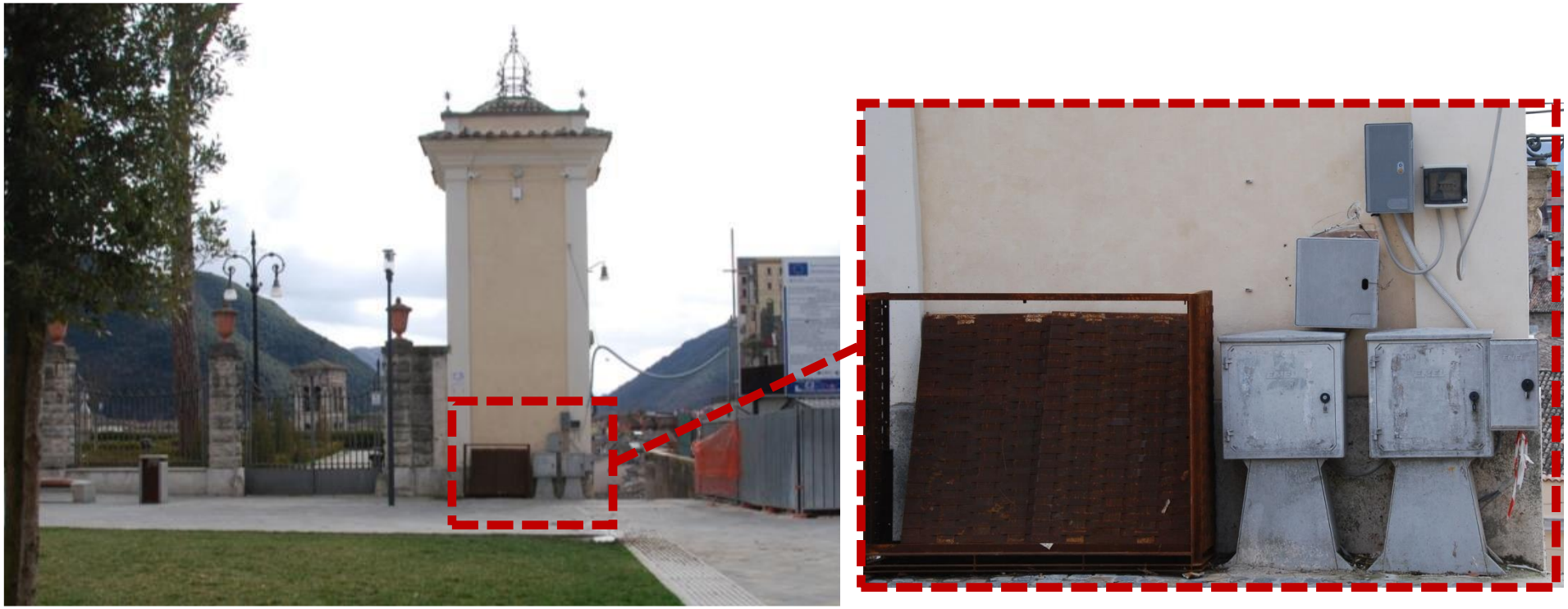
The problems encountered during the inspections were:

- architectural barriers, existing elements preventing the accessibility of places by creating real obstacles;
- degradation of buildings and monuments of historical-monumental value: in some cases the existing elements are placed close to buildings and monuments, in other cases they are integrated into the monuments themselves, creating a more visible degradation;
- degradation of urban decor: intended as a city space, for example squares, parks, roads, etc.
- security, for any accidental contact following collisions
- acts of vandalism, understood as a rupture and infringement of the elements themselves, with the consequent problem of electrical safety and service discontinuity.

SEARCH FOR PLACES

Architectural Barriers

SEARCH FOR PLACES



Degradation of buildings of historical-monumental value and monuments

SEARCH FOR PLACES

Degradation of buildings of historical-monumental value and monuments

SEARCH FOR PLACES

Degradation of urban decor

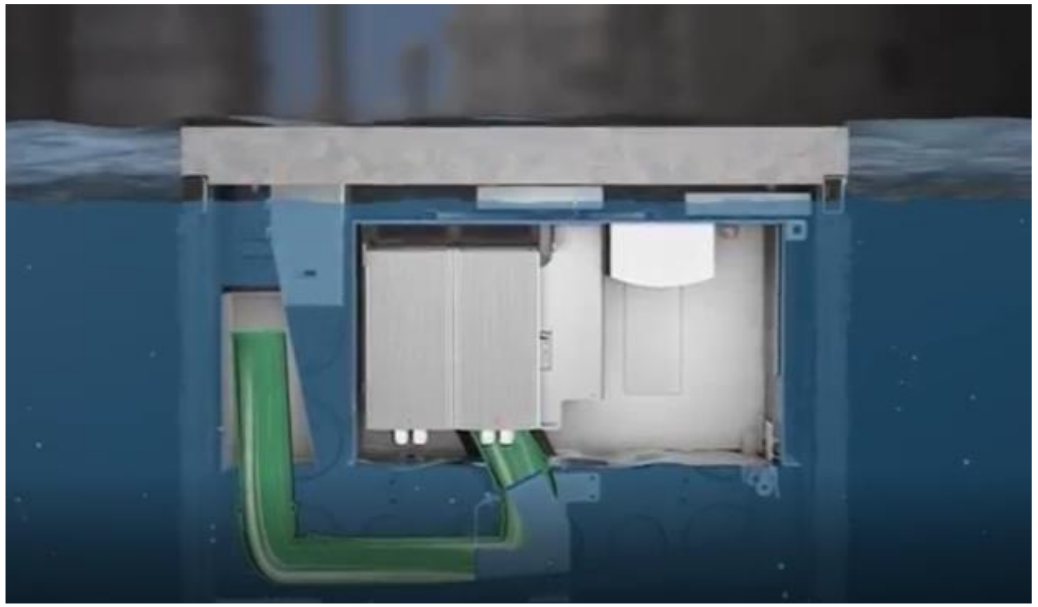
SEARCH FOR PLACES

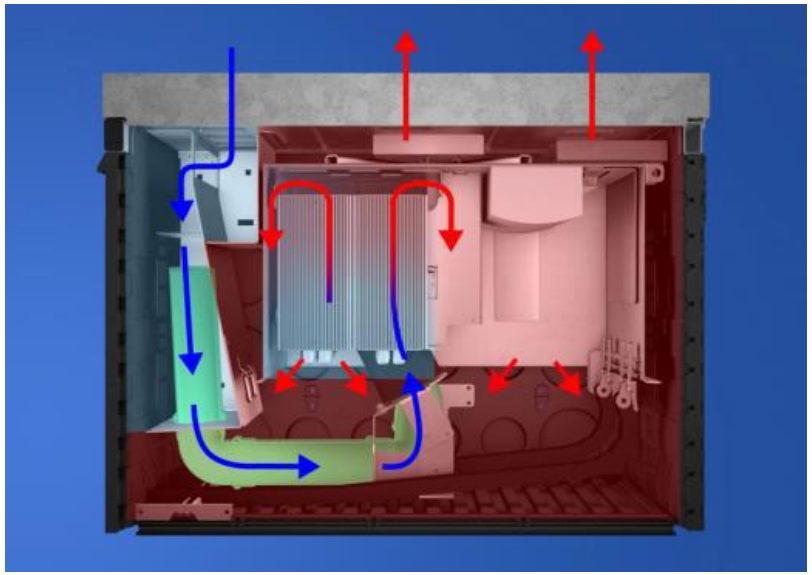
Degradation of urban decor

SEARCH FOR PLACES

Security and acts of vandalism

TECHNICAL SOLUTION – BELL SYSTEM





An "intelligent" effective and optimal solution for "smart cities" is certainly the underground manhole with bell system. It is a not invasive solution with low environmental impact that provides isolation and maximum resistance to flooding of the equipment and generally of the distribution networks

BENEFITS FOR THE CITIES

The main advantage over above-ground installations is certainly the elimination of any architectural barrier and the preservation of urban decor, thus allowing more serviceable locations.

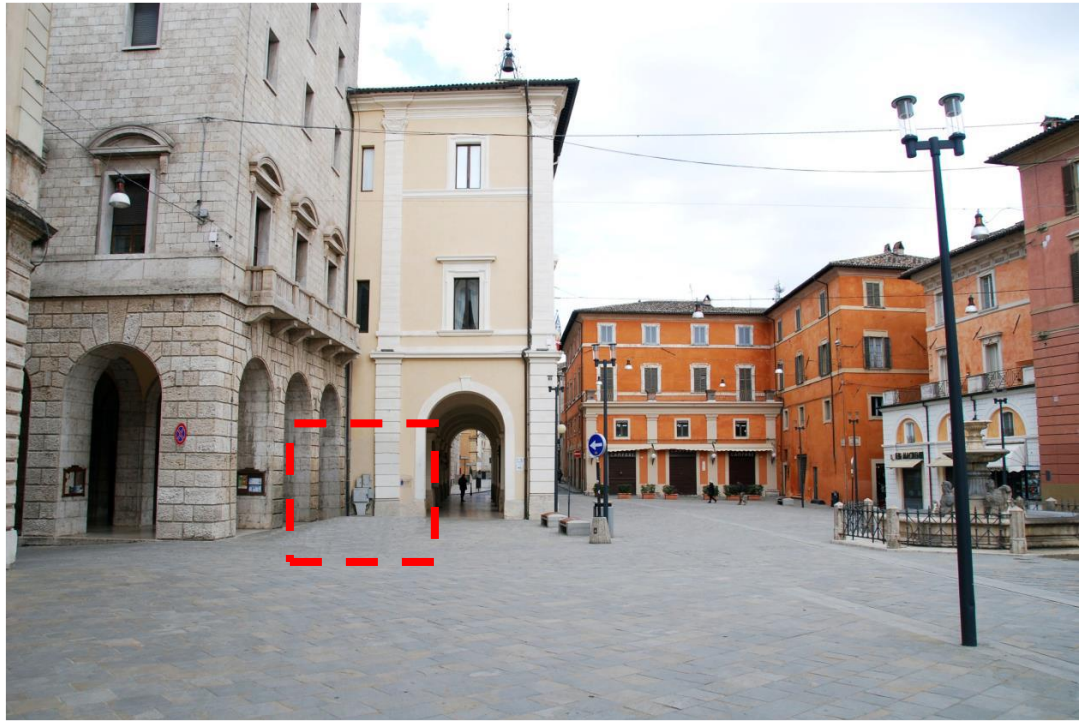
A city is smart if it is accessible.

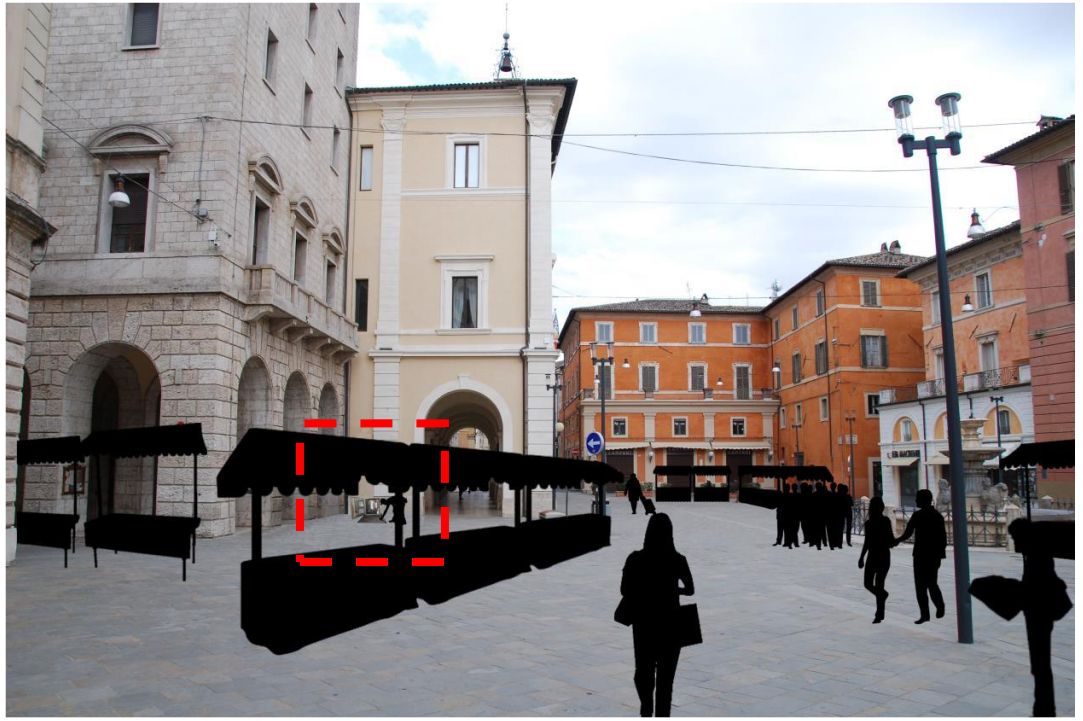
Example of sidewalk image insertion (before / after): removal of architectural barriers and improvement of the urban landscape

BENEFITS FOR THE CITIES

Example of burial of a pedestal for the electrical power supply, hardware and cabling completely underground

BENEFITS FOR THE CITIES





Example (before and after photoinsertion): removal of architectural barriers and improvement of the urban landscape

BENEFITS FOR THE CITIES

Example of burial of electricity distribution booths: preservation of the urban landscape

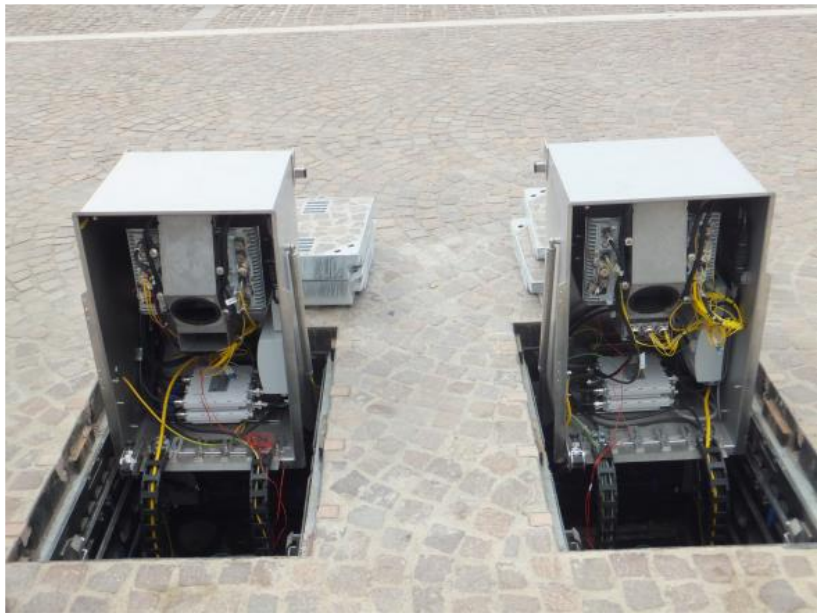
BENEFITS FOR THE CITIES

Example of a tourist port (before and after photo-insertion): removal of architectural barriers and improvement of the urban landscape

BENEFITS FOR THE CITIES

Example of a tourist port (before and after photo-insertion): removal of architectural barriers and improvement of the urban landscape

BENEFITS FOR THE CITIES



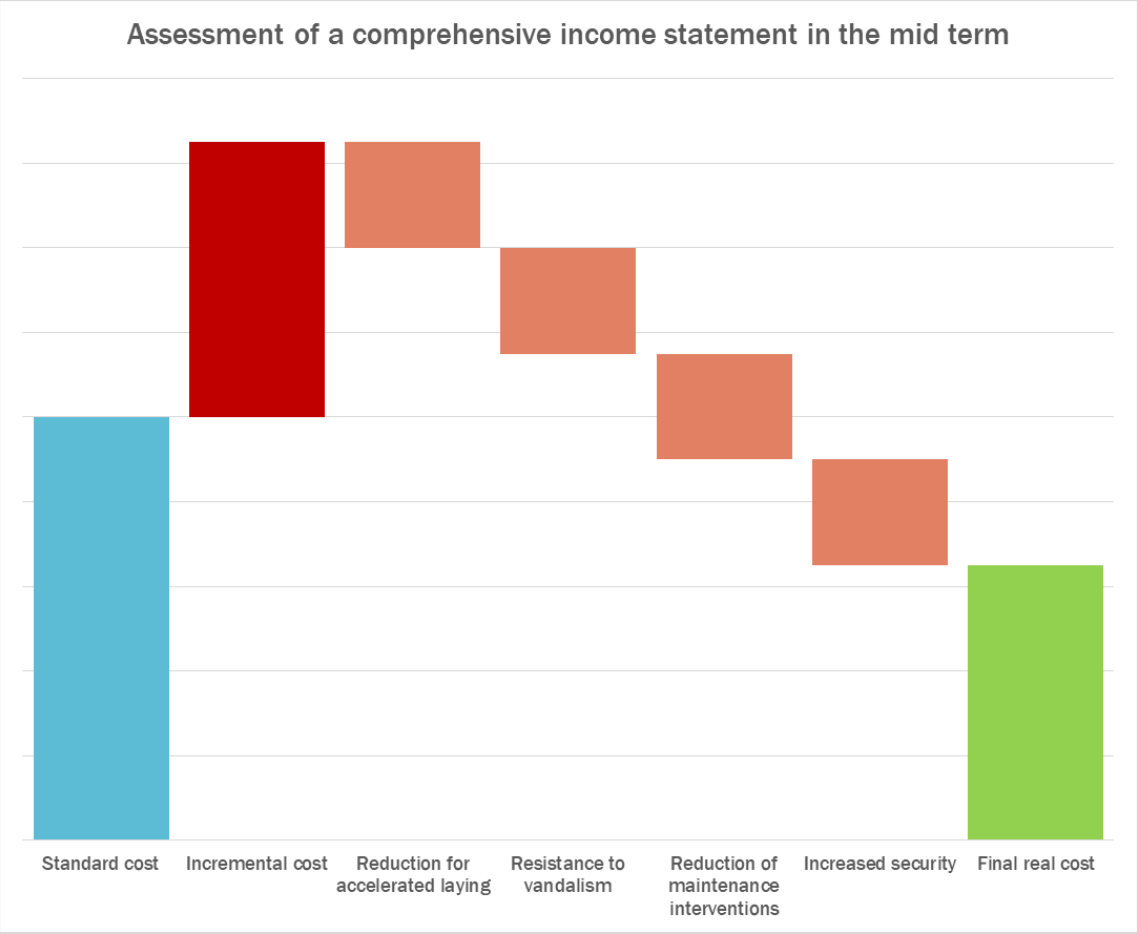
Mobile radio installation intervention along the Reggio Calabria seafront: preservation of the landscape and natural beauty of the spot

CONCLUSIONS

Reasons for municipalities to adopt innovative solutions for the realization of underground distribution networks and the advantages

	Advantage for the administration	Advantage for the network manager	Advantage for the citizen
Improvement of the impact on urban furniture	X		
Reduction of obstacles and architectural barriers	X		X
Greater environmental sustainability			X
Reduction of the interventions for the laying of the infrastructures and consequent decrease of the execution time of the road works and related costs	X	X	X
Increased resistance to environmental degradation and vandalism		X	
Reduction of maintenance interventions	X	X	
Increase of infrastructure security		X	

CONCLUSIONS



Quantitative and economic benefits deriving from **lower construction and operating costs during the entire life cycle of the infrastructure**, thanks to reduced operating impact during installation, maintenance and updating of the same

Qualitative benefits given from the improvement of public spaces both for citizens and occasional visitors such as tourists, adding to the evaluation criteria also a **possible return of image for the administration at the political level**.